

**REMARKS**

Claims 1-6, 8-13, 15-17, 19-26, and 29 are pending in this application. The Office Action withdraws claims 20-24 as being drawn to a non-elected invention; rejects claims 1-13, 15-17, 19, and 25-29 under 35 U.S.C. §112; and rejects claims 1-13, 15-17, 19, and 25-29 under 35 U.S.C. §103(a). By this Amendment, claims 1, 4, 5, 20, and 29 are amended, and claims 7 and 27-28 are canceled. Support for the amendments to the claims can be found in the specification and claims as filed. No new matter is added.

**I. Rejections under 35 U.S.C. §112**

**A. First Paragraph**

Claim 29 is rejected under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement.

Without admitting the propriety of the rejection, and in the interest of advancing prosecution, claim 29 is amended to clarify the claimed subject matter. Applicants thank the Examiner for the indication in the Advisory Action that if this amendment was entered, the rejection would be overcome.

Reconsideration and withdrawal of the rejection are respectfully requested.

**B. Second Paragraph**

Claims 1-13, 15-17, 19, and 25-29 are rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite. Applicants respectfully traverse this rejection.

Without admitting the propriety of the rejection, and in the interest of advancing prosecution, independent claims 1, 4, and 5 are amended to more clearly recite features of the claimed invention. Applicants thank the Examiner for the indication in the Advisory Action that if these amendments were entered, the rejection would be overcome. Further, regarding the rejection of the term "wave-like," this term is deleted in the present Amendment.

Reconsideration and withdrawal of the rejection are respectfully requested.

## II. Rejections under 35 U.S.C. §103(a)

### A. Yoshinaga in view of Otaki and Travnicek

Claims 1, 6-8, 11, 15 and 19 are rejected under 35 U.S.C. §103(a) as having been obvious over Yoshinaga (JP 01-231082) in view of Otaki (JP 2002-236439) as evidenced by Travnicek (U.S. Patent No. 3,996,187). By this Amendment, claim 7 is canceled and its subject matter is incorporated into claim 1. Applicants respectfully traverse the rejection.

Applicants respectfully submit that Yoshinaga in view of Otaki as evidenced by Travnicek does not teach or suggest all the features of amended independent claim 1. Specifically, Yoshinaga in view of Otaki as evidenced by Travnicek at least fails to teach or suggest that "the optical material layer is prepared by drying a material containing a hydrolyzed solution of an inorganic matrix material having a Si-alkoxide." The Office Action argues that this limitation is disclosed in Otaki, specifically at paragraph [0027]. Applicants disagree.

Otaki discloses that various compounds can be used in forming a photosensitive constituent layer. See Otaki at paragraph [0023]. However, the photosensitive constituent layer of Otaki includes an organic-inorganic hybrid polymer of formula (1), which includes the metal component described in Otaki's paragraph [0027]. That is, the organic-inorganic hybrid polymer in Otaki has the formula (1):  $R_mM(OR')_n$ .

In contrast to Otaki, instant claim 1 specifically requires that the optical material layer is prepared by drying a material containing a hydrolyzed solution of an inorganic matrix material having a Si-alkoxide. While Otaki discloses the use of an organic-inorganic hybrid polymer, Otaki does not teach or suggest instead using an inorganic matrix material having a Si-alkoxide, as claimed.

In response to this argument, the Advisory Action argued that Otaki's disclosure would still read upon Applicants' claims, in view of Applicants' disclosure at page 12, line 25

to page 13, line 1. However, Applicants' use of chloropropyltriethoxysilane is different from the material of formula (1) of Otaki. Specifically, chloropropyltriethoxysilane is  $\text{Cl}(\text{CH}_2)_3\text{Si}(\text{OC}_2\text{H}_5)_3$ . This material is different from the material of Otaki, because the corresponding R groups are very different.

According to the claimed invention, when the material is chloropropyltriethoxysilane, the corresponding R group is  $\text{Cl}(\text{CH}_2)_3$ , whereas the R group in Otaki formula (1) is a group having an ethylenically unsaturated bond and containing 1-10 carbon atoms. See Otaki at paragraph [0026]. The group  $\text{Cl}(\text{CH}_2)_3$  in chloropropyltriethoxysilane does not have an ethylenically unsaturated bond, and thus differs from the material of Otaki.

Furthermore, Otaki does not teach or suggest benefits that are obtained by using the claimed material in forming the optical material layer. The specification describes at page 11, lines 3-7, that the claimed optical material layer, formed using an inorganic matrix material having a Si-alkoxide, exhibits excellent compatibility with the organosilicon resin layer. However, this compatibility is not disclosed in Otaki or any of the other cited references.

None of Yoshinaga, Otaki, and Travnicek provide any reason or rationale for one of ordinary skill in the art to have taken the organic-inorganic hybrid polymer of Otaki, and instead used the material containing a hydrolyzed solution of an inorganic matrix material having a Si-alkoxide, as claimed. None of the references disclose any advantages that could be obtained thereby, such as the advantage of excellent compatibility with the organosilicon resin layer, that is obtained in the claimed invention.

Accordingly, independent claim 1 would not have been obvious over the applied references for at least the reasons discussed above. Dependent claims 6-8, 11, 15 and 19 would therefore also not have been obvious for at least the reason that independent claim 1 would not have been obvious.

Reconsideration and withdrawal of the rejection are respectfully requested.

B. Yoshinaga in view of Otaki and Travnicek, in further view of Penn

1. Claims 2 and 29

Claims 2 and 29 are rejected under 35 U.S.C. §103(a) as having been obvious over Yoshinaga in view of Otaki as evidenced by Travnicek, and further in view of Penn (U.S. Patent No. 3,897,995). Applicants respectfully traverse the rejection.

Applicants respectfully submit that Penn does not cure the deficiencies of Yoshinaga in view of Otaki as evidenced by Travnicek, as discussed above. Specifically, Penn nowhere teaches or suggests using a material containing a hydrolyzed solution of an inorganic matrix material having a Si-alkoxide, instead of the organic-inorganic hybrid polymer of Otaki.

Accordingly, dependent claims 2 and 29 would not have been obvious over Yoshinaga in view of Otaki as evidenced by Travnicek, and further in view of Penn for at least the reason that independent claim 1 would not have been obvious over Yoshinaga in view of Otaki as evidenced by Travnicek.

Reconsideration and withdrawal of the rejection are respectfully requested.

2. Claims 4, 9, 12, 16, 25 and 27

Claims 4, 9, 12, 16, 25 and 27 are rejected under 35 U.S.C. §103(a) as having been obvious over Yoshinaga in view of Otaki and Penn, as evidenced by Travnicek. By this Amendment, claim 27 is canceled and its subject matter is incorporated into claim 4. Applicants respectfully traverse the rejection.

Applicants respectfully submit that Yoshinaga in view of Otaki and Penn, as evidenced by Travnicek does not teach every feature of amended independent claim 4. Specifically, Yoshinaga in view of Otaki and Penn, as evidenced by Travnicek at least fails to teach or suggest using a material containing a hydrolyzed solution of an inorganic matrix material having a Si-alkoxide, instead of the organic-inorganic hybrid polymer of Otaki. As discussed above, none of Yoshinaga, Otaki, and Travnicek provide any reason or rationale for

one of ordinary skill in the art to have taken the organic-inorganic hybrid polymer of Otaki, and instead used the material containing a hydrolyzed solution of an inorganic matrix material having a Si-alkoxide, as claimed. Penn is not cited for addressing this shortcoming of the cited references, and does not do so. None of the references disclose any advantages that could be obtained thereby, such as the advantage of excellent compatibility with the organosilicon resin layer, that is obtained in the claimed invention.

Accordingly, independent claim 4 would not have been obvious over the applied references for at least the reasons discussed above. Dependent claims 9, 12, 16, and 25 would therefore also not have been obvious for at least the reason that independent claim 4 would not have been obvious.

Reconsideration and withdrawal of the rejection are respectfully requested.

C. Yoshinaga in view of Otaki and Travnicek, in further view of Inokuchi

1. Claim 3

Claim 3 is rejected as having been obvious over Yoshinaga in view of Otaki as evidenced by Travnicek, and further in view of Inokuchi (JP 2002-236439). Applicants respectfully traverse the rejection.

Applicants respectfully submit that Inokuchi does not cure the deficiencies of Yoshinaga in view of Otaki as evidenced by Travnicek, as discussed above with respect to independent claim 1. Specifically, Inokuchi nowhere teaches or suggests using a material containing a hydrolyzed solution of an inorganic matrix material having a Si-alkoxide, instead of the organic-inorganic hybrid polymer of Otaki.

Accordingly, dependent claim 3 would not have been obvious over Yoshinaga in view of Otaki as evidenced by Travnicek, and further in view of Inokuchi for at least the reason that independent claim 1 would not have been obvious over Yoshinaga in view of Otaki as evidenced by Travnicek.

Reconsideration and withdrawal of the rejection are respectfully requested.

2. Claims 5, 10, 13, 17, 26 and 28

Claims 5, 10, 13, 17, 26 and 28 are rejected under 35 U.S.C. §103(a) as having been obvious over Yoshinaga in view of Otaki and Travnicek, and further in view of Inokuchi. By this Amendment, claim 28 is canceled and its subject matter is incorporated into claim 5.

Applicants respectfully traverse the rejection.

Applicants respectfully submit that Yoshinaga in view of Otaki and Travnicek, and further in view of Inokuchi does not teach or suggest all the feature of amended independent claim 5. Specifically, Yoshinaga in view of Otaki and Penn, as evidenced by Travnicek at least fails to teach or suggest using a material containing a hydrolyzed solution of an inorganic matrix material having a Si-alkoxide, instead of the organic-inorganic hybrid polymer of Otaki. As discussed above, none of Yoshinaga, Otaki, and Travnicek provide any reason or rationale for one of ordinary skill in the art to have taken the organic-inorganic hybrid polymer of Otaki, and instead used the material containing a hydrolyzed solution of an inorganic matrix material having a Si-alkoxide, as claimed. Inokuchi is not cited for addressing this shortcoming of the cited references, and does not do so. None of the references disclose any advantages that could be obtained thereby, such as the advantage of excellent compatibility with the organosilicon resin layer, that is obtained in the claimed invention.

Accordingly, independent claim 5 would not have been obvious over the applied references for at least the reasons discussed above. Dependent claims 10, 13, 17, and 26 would therefore also not have been obvious for at least the reason that independent claim 5 would not have been obvious.

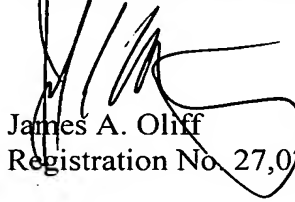
Reconsideration and withdrawal of the rejection are respectfully requested.

**III. Conclusion**

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the application are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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**Attachments:**

Petition for Extension of Time  
RCE Transmittal

Date: May 18, 2009

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